

BIBLIOGRAPHICAL NOTICES.

The Micrographic Dictionary: a Guide to the Examination and Investigation of the Structure and Nature of Microscopic Objects. By J. W. GRIFFITH, M.D. &c., and ARTHUR HENFREY, F.R.S., F.L.S., &c. Third Edition. Edited by J. W. GRIFFITH and Professor MARTIN DUNCAN. 8vo. London: J. Van Voorst, 1871-1874.

IF we are rather late in noticing the completion of this third edition of the 'Micrographic Dictionary,' this must not be taken to indicate any want of appreciation of the value of the work, but rather that we regarded it as already so well known and highly esteemed that any thing in the shape of a review of it was really a work of super-erogation. That the authors must have hit upon a widely felt want (must have "struck oil," if we may venture to use that elegant Americanism) when they first conceived the idea of preparing such a dictionary, may be regarded as proved by the reception it has met with; for it is no small evidence of popularity that so bulky a volume, with nothing but its intrinsic merits to recommend it, should have reached a third edition within sixteen years.

The cause of this popularity is not hard to find. Microscopists are pretty thickly scattered over this as well as other countries; and a prime want of every microscopist is a book which shall enable him, without having recourse to what is perhaps beyond his reach, an extensive scientific library, to ascertain in a general way the nature of the objects which come under his observation. Ordinary treatises on the microscope and its uses certainly furnish some information of the kind required; but this is generally restricted to the more striking objects, and it would manifestly be foreign to the purpose of such works to enter into details of genera and species. But it is precisely one of the main objects of the 'Micrographic Dictionary' to furnish such particulars, without neglecting the more general subjects of microscopical research; and thus the volume becomes a sort of condensed summary of minute zoology and botany, which renders it not only almost indispensable to the mere microscopist, but also a work of the highest value for reference to naturalists in general.

The edition of the 'Micrographic Dictionary' now before us was commenced in 1871, but, owing chiefly to ill health, Dr. Griffith, the surviving author, was unable to advance regularly with the task of editing it; and after about half the work was completed he was compelled to call in the assistance of Professor Duncan, whose well-known attainments in various departments of natural history are a sufficient guarantee that his part of the work is executed in a manner worthy of the reputation which the book had already acquired. The principal alterations in this edition are in the articles relating to the members of the animal kingdom; and in his treatment of these Dr. Griffith had already, in the portion edited by

him, given up some of that extreme conservatism in the matter of zoological classification which characterized the former editions. Prof. Duncan has gone still further in his portion of the book towards bringing the information contained in the zoological articles into full accordance with the most modern generally accepted views on this department of natural history. One series of these articles strikes us as being of special importance—namely that on the Foraminifera, in which we find an exposition of the views entertained with regard to the classification of the animals of that class by the distinguished English naturalists who have devoted so much attention to them. This section of the Dictionary has been prepared by Prof. T. Rupert Jones. The articles on the lower forms of vegetation, and especially those on the Fungi, have been placed under the care of the Rev. M. J. Berkeley; and we need hardly tell the readers of the ‘Annals’ that, under these circumstances, they are well done.

It is impossible in noticing a book of this nature to indicate all the alterations and additions that have been made in it, especially as the majority of them are in themselves but small. In the aggregate, however, very considerable additions have certainly been made, seeing that the present edition contains 100 pages more letterpress than its predecessor. That exceedingly useful element, the bibliography appended to the various articles, has been considerably increased in many instances.

The woodcut illustrations scattered through the text are, with very few exceptions, the same as those used in the second edition; but three new plates have been added, and all, or nearly all, the old figures have been freshly engraved on copper.

No doubt there may be here and there in the ‘Micrographic Dictionary’ things which one would like to see improved, and deficiencies which require to be supplied; but they are generally in small matters, and where the work done is so good it seems invidious to point out little spots. The most important deficiency that we have noticed is that of an article giving a summary of the modern views on embryogeny—a subject which is daily attaining more and more importance in connexion with zoological classification, rendering some account of the principal phenomena observed in different branches of the animal kingdom, and of the theories founded upon them, quite indispensable in a book of reference like that now under consideration.

But whatever defects may be noticed in this volume (and we believe that microscopists think the portions of it devoted to purely microscopic interests are a little behind the time), it seems to us that naturalists are deeply indebted to the Editors for what they have given us. The book is, in fact, so far as it goes, a substitute for, and guide to, a whole library of works on most branches of natural history; and as such we may most heartily recommend it to the notice of our readers.